

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-698 REV. G OR LATER APPROVED REVISION
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-698 REV.7 OR LATER APPROVED REVISION
REF. TCCA STC: SH92-43
REF. FAA STC: SR01446NY
REF EASA STC: EASA.IM.R.S.00709
REF. BRASIL STC: 2010S10-09
REF. CHINA STC: VSTC0680
REF. MEXICO STC: IA-625/2019

1.0 PURPOSE:

The purpose of this Dart Service Instruction (DSI) is to provide instructions for installation of the D412-698-023 Automatic Door Opener Kit on a Bell 412-030-851-XXX Composite Crew Door.

For D412-698-023 Automatic Door Opener Kits at CHG 003 and earlier, the DSI 9847-011 Composite Door Mod Kit is required. For D412-698-023 Automatic Door Opener Kits at CHG 004 and later, the content of the DSI 9847-011 Composite Door Mod Kit has been incorporated.

2.0 INSTALLATION OF D412-698-023 KIT ON COMPOSITE CREW DOORS:

NOTE: The following instructions are covering a typical RH side installation. For installation on the LH side, substitute D3594-043 Floor Doubler for D3594-044 Floor Doubler.

1. Follow installation steps 3.5.1 through 3.5.5 of IIN-D412-698.
2. Locate the D3594-047 Door Doubler on inner door skin, per Figure 2 of this DSI. Make sure location of door doubler is marked on door skin.
3. Make a 1.00" x 0.75" slot on the inside composite door skin per Figure 1 of this DSI for the MS21073L5 Anchor Nut to pass through and touch up per the Aircraft Maintenance Manual .
4. Drill Qty (4) #28 ($\varnothing 0.141"$) holes through the door skin and D3594-047 Door Doubler.
5. Remove any existing rivets where the D3594-044 Floor Doubler will be installed.
6. Perform step 3.5.9 of IIN-D412-698 on the D3594-044 Floor Doubler.
7. Prime and paint the D3594-047 and D3594-044 Doublers to match the aircraft per the Aircraft Maintenance Manual.
8. Apply a layer of Proseal on the faying surface of the D3594-047 and D3594-044 Doublers. Install D3594-044 Floor Doubler using CR3242-4 Rivets and D3594-047 Door Doubler using NAS9304B-4 Rivets.
9. Complete installation per steps 3.5.13 through 3.5.17 of IIN-D412-698.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: 
D. SHEPHERD (DE # 02)

DATE: 20.03.19
CERT. NO.: SH92-43
ISSUE NO.: 6

APPROVED

A	NEW ISSUE		SAD	20.03.19
REV.	DESCRIPTION		BY	DATE
DESIGN	SAD	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	SAD			
CHECKED	MB		DRAWING NO.	REV. A
MFG. APPR.	N/A		DSI 9847	SHEET 1 OF 4
APPROVED	VS	COMPOSITE DOOR MOD	TITLE	SCALE
DE APPR.	DS 			NTS
DATE	20.03.19	COPYRIGHT © 2020 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		

3.0 PARTS LIST:

D412-698-023 Automatic Door Opener kits @ CHG003 and earlier can be made compatible with the 412-030-851-XXX Composite Crew Doors by procuring the DSI 9847-011 kit.

Qty -011	Part Number	Description
X	DSI 9847-011	COMPOSITE DOOR MOD KIT
1	D3594-047	DOOR DOUBLER ASSY
4	NAS9304B-4	RIVET

For D412-698-023 Automatic Door Opener kits at CHG 004 and subsequent, the parts list in Installation Instructions IIN-D412-698 Rev. G (Section 7.0) or later and Instructions for Continued Airworthiness ICA-D412-698 Rev. 7 (Section 52.20) or later is updated as follows:

Qty -023	Part Number	Description
X	D412-698-023	AUTOMATIC DOOR OPENER KIT
1	D3552-11	GAS SPRING
1	D3594-5	DOOR DOUBLER
1	D3594-043	FLOOR DOUBLER ASSEMBLY, LH
1	D3594-044	FLOOR DOUBLER ASSEMBLY, RH
1	D3594-047	DOOR DOUBLER ASSY
2	D3622-1	BALL STUD
1	MS21073L5	ANCHOR NUT
2	MS20426AD4-4	RIVET
4	NAS9304B-4	RIVET

APPROVED

DESIGN	SAD	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	SAD			
CHECKED	MB	DRAWING NO.	REV. A	
MFG. APPR.	N/A	DSI 9847		SHEET 2 OF 4
APPROVED	VS	TITLE		SCALE
DE APPR.	DS#	COMPOSITE DOOR MOD		NTS
DATE	20.03.19	COPRIGHT © 2020 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		

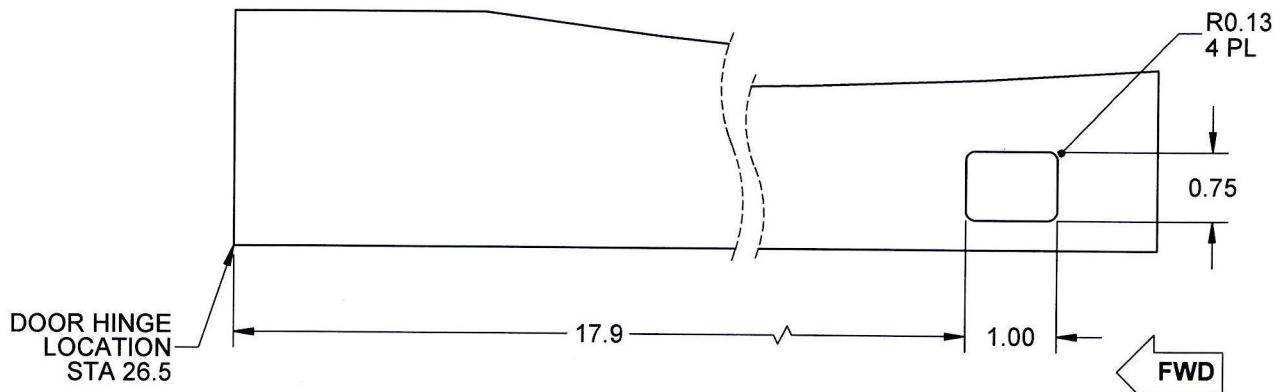


FIGURE 1 - INSIDE DOOR SKIN CUT OUT (REF)

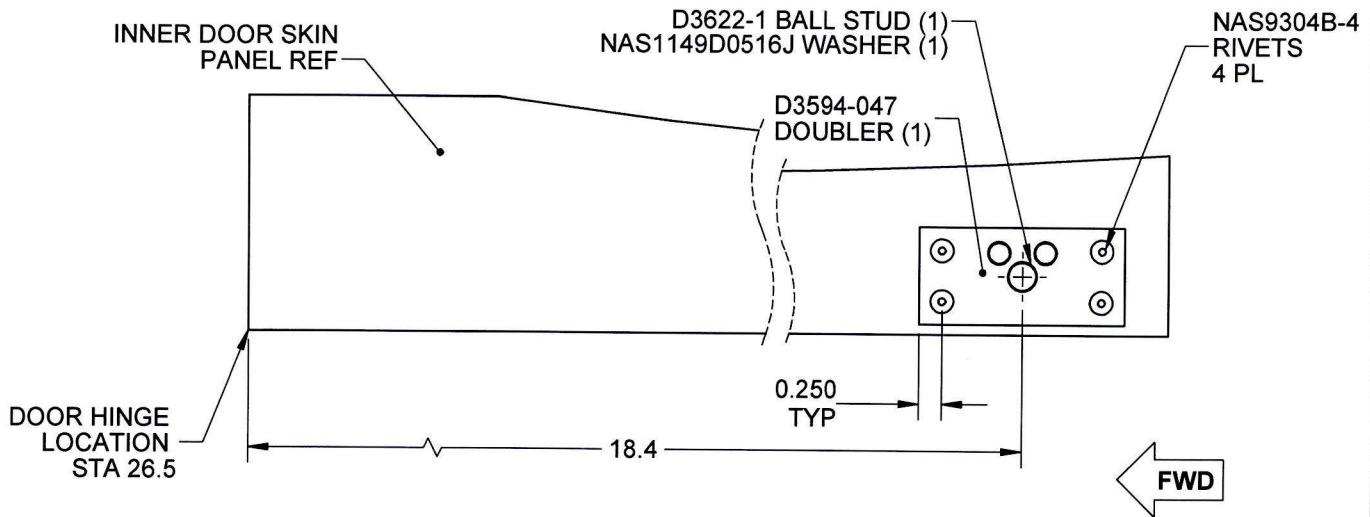


FIGURE 2- INSTALLATION OF D3594-047 DOOR DOUBLER

APPROVED

DESIGN	SAD	DART AEROSPACE LTD	
DRAWN	SAD	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MB	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9847	SHEET 3 OF 4
APPROVED	VS	TITLE	SCALE
DE APPR.	DS	COMPOSITE DOOR MOD	NTS
DATE	20.03.19	COPRIGHT © 2020 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

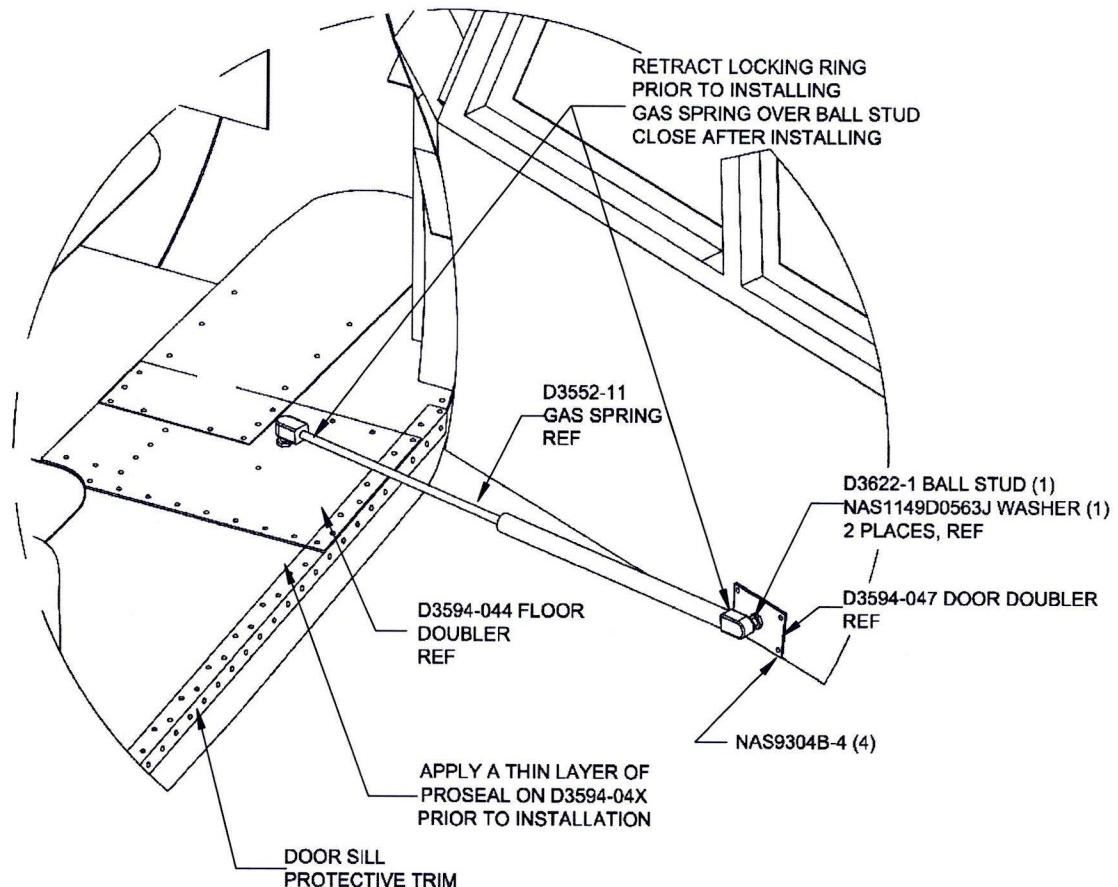


FIGURE 3-D412-698-023 INSTALLATION ON COMPOSITE DOOR



FIGURE 4-PHOTO OF COMPLETED INSTALLATION

4.0 WEIGHT AND BALANCE:

There is negligible weight change associated with this modification.

APPROVED

DESIGN	SAD	DART AEROSPACE LTD	
DRAWN	SAD	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MB	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9847	SHEET 4 OF 4
APPROVED	VS	TITLE	SCALE
DE APPR.	DS <i>H</i>	COMPOSITE DOOR MOD	NTS
DATE	20.03.19	COPRIGHT © 2020 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	